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COSMETIC PRODUCT CONTAINING INORGANIC FILLERS AND ACTIVE
INGREDIENTS

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Abstract: The invention relates to cosmetic compositions containing certain inorganic fillers and thus exhibiting particular effects in terms of UV behaviour with or without organic UV filters, IR behaviour, colour, and cosmetic dermal sensation. Said compositions contain ground, optically clear glass particles which have an average size of between 0.01 and 100 µm in a proportion of between 0.1 and 55 wt. %, and are formed from a glass which is melted then solidified. The inventive compositions also contain other cosmetic carrier materials, auxiliary materials, active ingredients or mixtures of the same. Said glass particles can consist of optical glass, phototropic glass, IR glass, UV glass, coloured glass, glass ceramics or mixtures of the same.

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Agent(s): WALTER, Wolf-Jürgen

Title in French: COSMETIQUE CONTENANT DES PRINCIPES ACTIFS
ET DES CHARGES INORGANIQUES

Abstract in French: L'invention concerne des compositions cosmétiques qui contiennent certaines charges inorganiques et sont ainsi particulièrement efficaces en ce qui concerne le comportement aux UV avec ou sans filtres UV organiques, le comportement aux IR, la couleur et

la sensation dermique cosmétique. Cette composition comprend des particules de verre optiquement clair moulu, dont la taille moyenne est de 0,01 à 100 μm , dans une proportion de 0,1 à 55 % en poids, ces particules de verre étant formées à partir d'un verre fondu puis solidifié, ainsi que d'autres matières de support cosmétique, matières auxiliaires, principes actifs ou mélanges de ceux-ci. Les particules de verre peuvent être constituées de verres optiques, de verres phototrophes, de verres IR, de verres UV, de verres colorés, de vitrocéramiques ou de mélanges de ceux-ci.

The invention involves cosmetic compositions, the set inorganic filler contains and shows special effects with reference to UV-Verhalten through it with and without organic UV-Filter, IR-Verhalten, color and cosmetic skin feeling. The composition contains ground, optically clear glass particles with a middle grain size of 0,01 to 100 μm in a share of 0,1 to 55 Gew.-%, with what the glass particles are formed out of an erschmolzenen and after it solidified glass, and further cosmetic bearer materials, support materials, active substances or mixture of it. The glass particles can IR-Gläser optical glasses, phototrophe glasses, UV-Gläser, color glasses, glass ceramics or mixtures of it is.

Cosmetic with inorganic filling and active substances the invention involves cosmetic compositions, the set inorganic filler contains and shows special effects with reference to WVerhalten, IR-Verhalten, color and cosmetic Hautgetübl through it.

To the improvement of the UV-Schutzes of cosmetics, among others inorganic oxides like TiO_2 , ZnO , SiO_2 or ZrO_2 are put in time for a long time. Still known is that so-called GlasFlekas, as preferably of SiO_2 -Flakes or Al_2O_3 -Flakes in the original condition or coats with metals or color-giving metal oxides in Pignentmischungen or also cosmetic formulations can be put in, DE 198 23 866 EP 1 013 725. such Flakes are produced as little tile-shaped transparent matrix on an unending bond, for example, and have a thickness of 0,1-5 μm and a length as well as width of 1-250 μm .

The task to develop new cosmetic formulations with particular color qualities and the light radiation absorption of influencing qualities with simultaneously improved Hautgetübl underlies the invention.

Invention in accordance with contains the new cosmetic with inorganic filling and active substances ground, optically clear glass particles with a middle grain size of 0,01 to 100 μm in a share of 0,1 to 55 Gew.-%, with what the glass particles are formed out of a molten and after it solidified glass and are selected from the group, existing out of lime soda glasses, Borosilicatgläser, Alumosilicatgläser, high-refractive heavy Bleialkalisilicatgläser and mixture of it, and it contains further cosmetic bearer materials, support materials, active substances and mixtures from it to 100 Gew.-%, covered on the total weight of the cosmetic in each case.

By "glass", an inorganic material mixture, that cooled down from the molten condition without crystallization and assumed a solidified condition, is understood.

To the glasses usable in the sense of the invention, the already named SilicaLgläser like KalknaDronglas, Borosilicatglas, belong Alumosilicatglas, high-refractive BleialkalisilicaLgläser, n to refractive index = 1,5-1,65, also as "heavy" glasses marks,

preferably lime soda glass. Such glasses become potash Tonerde, Borverbindungen, out of sand, lime, soda etc. erschmolzen and in a molded condition let solidify. By lime soda glasses, glasses are understood, that for example from SiO_2 , 71-75 percent), Na_2O , for example 12-16 percent), CaO , for example 10-15 percent) and i the rest to 100 percent from glaze helps and colors the materials if necessary exists, with what a part from well through K and a part of about through Mg can have replaced.

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substances ground, optically clear glass particles with a middle grain size of 0,01 to 100 μm in a share of 0,1 to 55 Gew.-%, with what the glass particles are formed out of a molten and after it solidified glass and are selected from the group, existing out of lime soda glasses, Borosilicatgläser, Alumosilicatgläser, high-refractive heavy Bleialkalisilicatgläser and mixture of it, and it contains further cosmetic bearer materials, support materials, active substances and mixtures from it to 100 Gew.-%, covered on the total weight of the cosmetic in each case.

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Glasses are understood by Borosilicatgläsern, that for example from SiO_2 , 70 - 80 percent), B_2O_3 , for example 7-13 percent), $\text{Na}_2\text{O}/\text{K}_2\text{O}$, for example 4-8 percent), Al_2O_3 , for example 2-7 percent) and the rest to 100 percent from glaze helps and if necessary coloring materials exists.

Such glasses, with which is occupied by aluminum Si-Gitterplätze in the glass network, are understood by Alumosilicatgläser.

Hochbrechende BleialkalisilicaLgläser are glasses, that contain high shares lead oxide beside SiO_2 , $\text{Na}_2\text{O}/\text{K}_2\text{O}$ and CaO , in 10-40, for example, \.

The invention-appropriate glasses don't contain any P_2O_5 .

Glasses can assume different tones of metal connections different through addition. So, Cu^{2+} leads Cr^{6+} to a weak blue, Cr^{3+} to green, too yellow, for example, Mn^{3+} too violet, Fe^{3+} to yellow - brown, Fe^{2+} too blue-green, Co^{2+} to intensive blue or pink in Boratgläsern, Co^{3+} to green, Ni^{2+} according to Glasmatrix to brown yellow, yellow, green, blue until violet, V^{3+} ZU green or brown etc. gets mass-colored one on that occasion or massage-tinted glasses. Intensive yellow -, one gets orange or RoLfärbungen through removal of Edelmetallkolloiden, Selen, Cadmiumsulfid and Cadmiumeelenid when cooling off of the glazes or through additional Wärmobehandlung. These glasses are called also "attempt glasses", as for example in the glass matrix the known gold ruby glasses with gold removal.

Cosmetics with such mass - or surface-colored glasses represents a special Austübrungsform of the invention.

In order to get certain Isoliereigenschaften opposite sunlight, it is known, dünne layers of silver, tin, i gold und/oder copper on the glass surface on the outside of glasses to aufdampfen. Furthermore, it is known, for example Fen ster gläser gray - or bronze-colored, to sound, for the purpose of Hellig keitsdämpfung, or, to tone specifically yellow. One can her/it/them! also for W - radiation and short-wave blue impermeable does, similarly like with glasses for sun glasses, where combines both effects can appear.

As well as simple mass, or surface-colored glasses also as others with particular qualities equipped glasses, as surface-sounded, as well as , bedampite glasses, glass ceramics, can be placed IR-absorbierende glasses - UV, absorbing glasses, phototrophe glasses and mixture of it - in the sense of the invention one.

The glasses are subjugated a meal process, for example in ball mills or cylinder mills, before through what one particle sizes of the glass powder of approximately 0,01-100 µm reaches. If necessary, the glasses can be pre-treated with following acting as a deterrent before grinding by a prior temperature treatment, for example through a temperature waste of approximately 800 °C on 50 °C within 2 seconds.

Preferred particularly particle sizes of the glass powders with the different qualities lies between 0,1 µm and 90 µm, especially between 0,1 and 10 µm, specifically between 0,8 and 2 µm. A preferred share of the glass particles in the erfindungsgemäßen cosmetic lies in the area of 0,1 to 45 Gew.%, insbe, separate 1 to 20 Gew.% - particularly preferentially 0,1 to 12 Gew.%, covered on the total weight of the cosmetic in each case.

Through the use of the glass particles, one generally gets a clearly better texture of the product and a better Hautgefühl beside the Einfärbung of the cosmetic. A cosmetic with glass particles with particle sizes under approximately 15 µm läßt itself especially soft on the skin spread. The added WGläser and photo tropics shows recognize-leave glasses a clear diminution of organic filters near same Lichtschutzfaktor in addition, so that especially the risk of possible Hautirritationen with high Lichtschutzfaktoren through organische filter substances considerable can be repressed.

IR-Gläser reduce the influence of IR-Strahlung on the skin. All glasses show Lichtstreuungseffekte, that can still reinforce the particular effect. Mikroskopisch have the gemahlten particles an unregelmäßige, polyedrische form with approximately same length, width and height, so that the glass particles are no Glasflakes and are not trained scale-shaped.

Preferred, optically clear glass particles are toned by metal relationships in the glass matrix continuously.

Under "optically clear" glass particles is understood invention-in accordance with such that is not dully and incident light partially reflektieren, partially absorbs and partially transmittieren. In another Ausführungsform of the invention, at least a part of the surface of the glass particles can have sounded colorfully through metal connections, for example through a corresponding follow-up treatment. The color tinge can have been created profitably in form of attempt colors through a cools off - or heat treatment regime during or after the Abkühlphase.

In another Ausführungsform of the invention, the optically clear glass particles are ground optical glasses in form of Krongläsern, Flintgläsern or mixtures from it. Optical glasses are qualitatively high-quality glasses with high Schlierenfreiheit, optical homogeneity i.e. constance of the refractive index within one glases, as low as possible blister salary, inferior absorption in defined spectral areas and low double refraction.

Natronalkalisilicatgläser (Krongläser), Blei-Alkali-Silicatgläser, are Flint basis for these glasses -

glasses, as well as through Lanthan, B₂O₃, BaO, Al₂O₃, ZnO and fluoride for particular purposes molten glasses. These optical glasses can also have toned through metallic

additional group elements like Cu, Ti, V, Cr etc. such optical glasses is the glass D8010 or the glass S-8061 of BULKHEAD, Germany, for example. In of another Ausfühungsform of the invention are the optically clear glass particles ground phototrophe or photo chrome glasses, with what the concepts phototroph and photo chrome synonymously is used.

At these glasses, the permeability decreases with irradiation with light in the visible spectral area. The glasses become dark. After completion of the exposure, she/it goes back again to her/its/their exit value after short time. This way, the transmission of visible light can be lowered until by 20 percent, with what the intensity of the Lichtwir kung acts proportionally towards the strength of the tinge. The Borosili -! silver salts and Metallhalogenide become catgläsern here, Halo towards = C1 (Br) or metal oxides admitted, and while and after the glaze process takes place a removal of Silberhalogeniden through a defined Temperaturfüh rung, glassy and / or crystalline shares, that cause the Phototropie.

Chemically, a Redoxprozeß lies this metal removal to reason, with which the silver ions adorn redu to metallic silver, becomes. The glass colors this gloomily. Since the process is rever sibel, the silver atoms can back-change an electron abge Ben and itself again into the transparent silver ion ever.

The portrayed process runs also in finely zermahlenen photo - trophen glass powders and within a cosmetic composition from. Corresponding compositions can his/its all cosmetic sun protection preparations for skin and hair as well as for the decorative cosmetics, like makeup, groundings, lipsticks etc.

The phototrophen glasses can also work like a W-Filter, with what existing W- Filtersysteme supplements or can be replaced completely, with it. The UV-Filterwirkung of the phototrophen glasses can be dependent on the intensity of the incident light, and would offer the highest protection consequently if the sun seems the most intensive.

For the invention employable photo chrome glasses is Photosol Superbraun brown (D6220), Photosolar Superbrown (D6526), of Photosolar Super (D6726), Photosolar gray (D1125), of HC Photosolar Photosolar@SuperOrey (code D1426') dark brown, for example, (D6625) from BULKHEAD, country hat, Germany or corresponding glasses of other manufacturers.

Optically clear glass ceramics, that can be transparent or not-transparent in the visible area, are another preferred glassy product. Transparent or virtually transparent glass ceramics are preferred. The cooling becomes with glass ceramics the itself in the glaze condition of situated glass so steered, that submikroskopisch fine Kristallite, that steer the crystallization of the glass as germ creators in the certain size, are formed in suitable glass systems. Different crystal phases can originate on that occasion and as final product materials with extremely inferior expansion over a wide temperature area or such with glimmer-similar crystals. Such glass ceramics stand between glasses and ceramics and have special refraction qualities through the crystal education also in a ground condition. Special color effects can be achieved out of so-called polychromatischen glass ceramics. On this occasion the crystallization is prepared by W-Bestrahlung and is started by subsequent Erwärmung. To this, it needs the presence of some percent of Alkalitluorid, zinc and alumina, as well as inferior quantities of silver connections and Ceroxid with the Silicatglasmatrix. Through the W - irradiation constructs itself Metallkolloidteilchen, that

works as germs for the Entglasung and changes the system yellow into one when further tempering until brown colored glass ceramics. Any other FarbLöne can be generated of halogens further with presence (Brom, chlorine) by again-y W-Bestrahlung and Erhitzung on the basis of different Kristallite, that can award the cosmetic products special Lichtstreuungs and color effects.

In another implementation form can, the optically clear undyed glass particles, that the glass particles of optical glasses optically clear surfaces - or mass-colored glass particles - , the particles of glass ceramics, that W - and IR-Filter-Glasteilchen - is for mixture the photochromen glass particles - plate-glass particles - from it at her/its/their surface silanisiert in each case, itself through what! other hydrophobe/hydrophile interactions with the waters phase or the ölphase yields. For example, an improved hydrophilic behavior of the particles can be gained by the Silanisierung of the Gläeoberfläche through what a verbes serte training of the particles is possible into the cosmetic Formulie rung and an improved stability of the emulsion.

The Silanisierung as such is known and can take place in liquid or in the steam phase, for example through treatment with a suitable Silan like a Tetraelkylsilan.

With the invention-appropriate additions more differently ground glass powder can aim WA and WB-Absorption of und/oder Reilexion of cosmetic formulations in dependence on type and quantity of the glass powder is influenced. Also the IRAbsorption and - reflection can be influenced to the certain meadow extent. Additionally, the glasses can have pigmenting qualities. An especially preferred cosmetic composition can contain such glass powder, that can alter her/its/their color und/oder absorption qualities under certain conditions, like for example UV-Einstrahlung, or such glasses, that are coated many times at the surface, with materials with different refraction index, about through it interferences und/oder also reflection, to reach.

A particular effect can be gained by a different light scatter of the glass particles, especially then, if mixtures of different glass particles are available.

Another Ausführungsform of the invention is to use glass particles with IR-absorbierenden qualities in a cosmetic formulation. Recently, the thesis is represented, daß-hautschädigende effect not only on W-Strahlen but also and above all from IR-Strahlung goes out.

IR-Strahlung shall be also at the formation of the skin cancer - teiligt is. Since she/it consists the Erdoberfläche of reaching sun radiation approximately of IR-Strahlung to 46 percent and sun protection products don't seem wärmsabwehrend, especially is each sunbathing of an elevated infrared effect exposed.

This is promoted particularly through the practice that the stay in fully one-beaming sun can be extended very long at use of a sun cream according to height of the Lichtschutzfaktors.

Through an invention-appropriate cosmetic, the glass particle from IR - filter glasses contains, radiations with wavelengths can > 780 nm from the IR-Bereich of the spectrum effectively is absorbed. It is reduced the Hautalterung and the skin cancer risk clearly by it.

Given optical IR-Filtergläser or IR-absorbierende in glaze glasses are the bulkhead glasses from IR No. 8625, 8533, 8516 and 8512 as well as corresponding differently marked glasses of other manufacturers, for example, - glasses.

Another Ausführungsform of the invention is to use glass particles with W-absorbierenden qualities in a cosmetic formulation. To such glasses, blue filter glasses and clear filter glasses belong, for example.

A blue filter glass is M-UG 6 one dark-violet or profoundly dark-violet or blue toned Silicatglas, like M-UG 6, for example, plus, M-UG 2 or WISOL 95 of BULKHEAD, Germany. At these glasses, the spektrale transmission degree virtually is Gauß'schen in the area from approximately 300 nm to approximately 420 nm in one distribution curve (mistake curve) between 0 and 80 percent.

A clear filter glass with defined edge wavelengths is Sanalux, type 316, of Soladur, type 320, Germany filters 322, filters 324 and filters 326 (all of BULKHEAD), for example, with transmission degrees for UV-B of 25 to 2,5 percent in the stated sequence. Of course, also similar glasses of other manufacturers can be put in for the invention-appropriate cosmetic composition.

The invention-appropriate cosmetic still contains cosmetic support and bearer materials as they are usually used dye, further pigments with coloring effect, radical catchers, thickening means, preservative, vitamins, of Filmbildner, scent materials, soft-making substances, moist-stationary substances, alcohol, Polyole, in such preparations, for example water, Ester, Elektrolyte, gel creators, polar and unpolare oils, polymer, Copolymere, emulsifiers, wax, stabilizers. As cosmetic active substances can, I are put in inorganic and organic light preventatives, radical catchers, vitamin, enzyme, inflammation-unfavorable natural Wirkstoffe of Melanin, Antioxidationsmittel, vegetable active substances, polymer, for example, with oxygen laden asymmetrical lamellare aggregates in accordance with WHERE produced 94/00109, that consist of Fluorcarbonen and Phospholipiden (AOCS), Aufschlußprodukte of yeasts or vegetable materials, through a gentle Ultraschall-Aufschlußverfahren in accordance with WHERE in 94/13783, kaolin as well as with SiO₂ modes fiziertes kaolin in accordance with W094/17s88 as well as further usual work materials. The application of the invention-appropriate cosmetic compositions can, for example, After-sun-Produkten, day creams, take place night creams, defects, body lotions, cleaning milk, body powders, eye cosmetics, of hair shampoos, shower gels, hair masks, hair irrigations, shower oils in form of sun creams, sun gels, bath oils and in products of the decorative cosmetics like deodorant pens, perfume pens, lipsticks, gels, lid shadows, compact products like compact powders, rouge, grounding, makeup etc. the manufacture of such products takes place on a manner, as she/it is known in this area for the expert. This for the invention started oils can oil cosmetic usual is, like a petroleum; hydriertes Polyisobuten; synthetic or from nature products of produced Squalan; cosmetic Ester or Ether, she/it branches or unverzweigt, filling or unsatisfied can be; vegetable oils; or mixture two or several of it. Especially suitable oils Hydrogenated Polyisobuten, Polyisopren, are Trimethylpropan-triisostearat Squalane, Tridecyltrimellitat, for example, Jojobaöl oils Isodecylcitrat, Neopentylglycoldiheptanoat, PPG-15-stearylether as well as vegetable, like Calendulaöl, avocado oil Macadamianuöl Rizinusöl wheat germ oil grape nuclear oil, KukuinuDöl, thistle oil, Nachtkerzenöl, Salloröl or a mixture several of it. Ever after which oils is selected, the cosmetic own ships are influenced.

As Ester or Ether is suitable, for example, (INCI-Namen): DipentaerytUrityl hexacaprilate/hexacaprinate/tridecyl trimellitate/tridecyl stearate/neopentyl glycol

dicaprylate dicaprate, Propylene glycol dioctanoate 5, Propylene glycol dicaprylate 2,30 dicaprate, Tridecyl stearate/neopentyl glycol dicaprylate dicaprate/tridecyl trimellitate, Neopentyl glycol dioctanoate, Isopropyle myristate, Diisopropyl dimer dilinoleate, Trimethylpropane triisostearate, Myristyl ether, Stearyl ether, Cetearyl octanoate, Butyl ether, Dicaprylyl ether, PPG1-PEGg Lauroyl glycol ether, PPG15 Stearyl ether, PPG14 Butyl ether, Fomblin HC25.

Carbomer, Xantbangummi, belong Carrageenan, acacia rubber, to suitable GelLildnern to Guargummi, Agar-Agar, Alginate and Tylosen, Carboxymethylcellulose, Hydroxyethylcellulose, determined quaternisierte Cellulose, g[quaternisierter Guar, for Polyacrylate, Polyvinylelkohol, of Polyvinylpyrrolidon, Montmorillonit. Vitamins like vitamin C and derivatives of it, for example Ascorbylacetate, belong to Antioxidationsmitteln, phosphate and, palmitate; Vitamin A and derivatives of it; Folsäure and their derivative, vitamin E and their derivative, like Tocopherylacetat; Flavone or Flavonoide; Amino acids, like Histidin, Glycin, Tyrosin, Tryptophan and derivatives of it; Carotinoide and carotene, like z.B. α -Carotin, β -Carotin; Urine acidity and derivatives of it; α -Hydroxysäuren like Citronensäure, lactic acid, Apfelsäure; Stilbene and their derivative; just as of GranaLapfelextrakte.

It still is possible, the invention-appropriate compositions corresponding lands on water, und/oder öllösliche UVA, or, to add WB-Filter or both. 4 - Aminobenzoessäure-Derivate like the 4 - belong to advantageous öllöslichen WB-Filtern, Dimethylamino)-benzoesäure-(2-ethylhexyl)ester; Ester of the cinnamon acidity like the 4-Methoxyzimtsäure(2-ethylhexyl)ester, Benzophenon-Derivate like 2-Hydroxy-4-methoxybenzophenon; 3-Benzylidencampher-Derivate like 3-Benzylidencampher.

Preferred öllösliche W-Filter are Benzophenone-3, Butyl - Methoxybenzoylmethane, octyl Methoxycinnamate, Octyl Salicylate, 4 - Methylbenzylidene Camphor, homo salals and Octyl Dimethyl PABA. Wasserlösliche UVB-Filter are Sulionsäurederivate from Benzophenon or from 3-Benzylidencampher or salt like this, for example, well, or K-Salz of the 2, Phenylbenzimidazol-5-sulionsäure. Dibenzoylmethan-Derivate like 1-Phenyl belong to WA-Filtern

4-(4'-isopropylphenyl)propan-1,3-dion. the named organic UV-Filter can partially or completely be replaced with the erfindungsgemäß of started particular glass powders with UV of absorbing effect, like certain Glaakeramiken and phototrophe glasses.

Sun protection filters can be also inorganic Pigmente on basis of metal oxides, like TiO_2 ; SiO_2 , ZnO , Fe_2O_3 , ZrO_2 , MnO , Al_2O_3 , that can be used also in the mixture.

Especially preferentially, substrata of TiO_2 of und/oder ZnO are as inorganic pigments agglomerated that shows one to content at spherical and porous SiO_2 -Teilchen, with what the SiO_2 -Teilchen have a particle size in the area of 0,05 μm until 1,5 μm , and beside the SiO_2 - particles other inorganic particle-shaped materials with spherical structure, with what the spherical SiO_2 -Teilchen defined with the other inorganic materials, is available agglomerate with a particle size in the area of 0,06 μm until 5 μm (in accordance with Wogs/06012) forms.

Preferred preferred concentrations of the glass powders are also in the area of 5 to 15 Gew.-%. the refraction numbers of the glass particles lie approximately in the area from 1,4 to 1,8.

The invention should be expounded by examples below near. All statements take place in

weight percent provided nothing else is stated.

Beispiel 1 Gesichtsmaske I phases A water of Q.. ad 100 Carbomer 0,5 Glycarine 4 0 Propylenglycol 2,5 kaolin in accordance with Bsp. 1 Wos6/17588 2,0 glass powder mixture blue, Co2 - glass, and red, Au-Glas, middle particle size 0,5-1 m 5,5 phase of B Glyceryl Stearate 1,0 Stearic Acid 0,5 Jojoba Oil 1,0 Cyclomethicone 5,0 phase C Triethanolamin 0,5 grades D Anthemis Nobilis Flower Extract 2,0 Camomille 1,0 preservatives 0,8 perfume 0,3 the manufacture takes place through addition from water to the glass powder, with what 5 minutes are homogenized approximately with 10.000 r.p.m.s.s. The addition of kaolin takes place after it with 2500-3000 r.p.m.s.s until the receipt of a homogeneous mixture. The temperature is increased on 60 °C +5 °C and is to it-given the remaining components of the phase A. This separately under touching and warming up on 65 °C + 5 °C of produced phase B becomes with the phase A scrambles and with approximately 8000 r.p.m.s.s and at least 60 °C for 15 to 20 minutes homogenizes. Then, the phase C is admitted under touching, on 40 °C cools down, further touches and admits phase D. After mixing, it is homogenized 5 minutes with approximately 5000 r.p.m.s.s.

One gets a cosmetic formulation a silken blue sound and silken Hautgetühl as face-pack with I.

Example 2 makeups grounding phase water of G.. ad 100 Squalane 10,0 glasses powder mixture ruby gold, i middle particle size 5-10 m 5,0, Glass ceramics powder yellow middle particle size 5-10 gm 5,0 gold pigments (MERCK) 1,5 color pigments Fe2O3 (black) 0,1 color pigments TiO2 0,8 color pigments Fe2O3 (yellow) 0,2 grades B Steareth-21 2,1 Steareth-2 2,9 C1215 Alkyl Benzoate 3,5 Stearyl Alcohol 1,5 grades C PEG-8 1,0

Phase D Silicon-Cyclomethicone 5,0 grades E preservative 0,6 perfume oil 0,4 for the phase A and I are mixed together water, Squalane and the glass powders I and are homogenized at most 20 min with 8000 to 12000 r.p.m.s.s. Then, the other components are to it-given to it-given, mixed and increased the temperature on approximately 65 °C +3 °C. The phase B is produced by mixing and temperature increase separately on approximately 65 +5 °C. Under touching, the two phases are mixed and are homogenized 15 to 20 min with 10000 r.p.m.s.s. The mixture is cooled down after it on 50 °C, to it-given the phase C under touching and then the phase D. the mixture is homogenized at least 10 min with 3000 to 5000 r.p.m.s.s, cooled off on approximately 35 °C. The addition of phase E. takes place example 3 peeling after it - gel water of Q.. ad 100 Carbomer 2,0 Glycarine 10 Propylenglycol 5 glass powder blue-green, mass-colored (FeZ+) middle particle size 85-100 gm 10 grades B Triethanolamin 2,0 grades C Silicone 2, is yielded Glycerin and Propylenglycol into the water 0 preservation means 0,5 perfume oils with Raumtemperatur in 0,8 and is scrambled. Carbomer hinzuge becomes after it -

gives and homogenizes for approximately 20 minutes, and then the glass - powder added and further 30 minutes homogenizes with approximately 8000 r.p.m.s.s. after the neutralization with the phase B is yielded the separately produced phase C and the mixture like - derum 30 min homogenized.

Example 4 sun milk gel with color alteration of W - light phase A water of Q.. ad 100

glass powder phototroph, BULKHEAD, Photosol Superbraun brown (D6220), middle Teilchgröße 3-7 gm 20,0 Glycerin 5,0 Crosspolymer 0,3 grades B Octyl Salicylate 5,0 Benzophenone-3 2,5 Dimethicone 5,0 Jojoba Oil 3,0 grades C Triethanolamine 0,3 grades D preservative 0,8 perfume oil 0,5 for the phase An is scrambled the glass powder in water and Glycerin, Crosspolymer to it-given to it-given and with approximately 16000 r.p.m.s.s and at most 40 °C for 20 min homogenisiert. The phase B is produced separately with 45-50 °C and homogeneous mixture and with phase A mixes. This then takes place with approximately 45 °C and following Homogenisierung with 8000 to 10000 r.p.m.s.s for approximately 30 min.s, the phases C and D are to it-given to it-given and are homogenized the mixture again.

One gets a Sonnennilchgel with a Sonnenschutzfaktor (SPF) of approximately 30.

Example 4a

The same composition as of example 4 without the glass -

powder leads to a Sonnennilchgel with a SPF of approximately 15. Example 5 makeup grounding II phase An I water of Q.. ad 100 1 glass powders W - glass, bulkhead glass filter 322, middle particle size 0,8-1,8 gm 4,5 powders glass ceramics, middle particle size 1-1,5 gm 5,5 paints TiO₂ knows brown 0,1 paints (Fe₂O₃) 0,5 paints yellow 0,2 grades B Steareth-21 2,1 Steareth-2 2,9 C'2 5 Alkyl Benzoate 3,5 Stearyl Alcohol 1,5 grades C PEG 8 1,0

Phase D Cyolomethicone 6,0 Honey Extract 0,5 the operation corresponds that of example 2.

One gets a particular makeup that lies very soft and fashionable on the skin and a protection effect against UV-Strahlung: has (SPF 8) example 6 skin gel with W - protection water of Q.. ad 100 glass powder phototroph, middle particle size 0,4-1,6 gm 20 r ° Carbomer 0,9 Glycarin 10,0 Triethanolamin 0,9 preservation means 0,3 perfume oils 0,5 the individual components is brought in the stated sequence with 20-25 °C into the water under touching, mixes and homogenizes. One gets a gel with a light protection factor SPF B. example 7 skin emulsion with IR-Schutz phase A water of Q.. ad 100 glass powder IR-Filterglas, bulkhead glass No. 8533 middle particle size 1-3 gm 9,8 grades B Cetearyl Alcohol 2, Isopropyl Myristate 3,0 Dimethicone o, g PEG 40 Castor Oil 1,0, Phase C preservation means 0,3 perfume oils 0,5 the separately produced phase A that was homogenized with 7000 r.p.m.s.s and the phase B. this with 500 r.p.m.s.s was stirred, is warmed up on approximately 70 °C and is together-given. After a Homogenisierungszeit of at least 10 min with approximately 10.000 r.p.m.s.s, it is cooled down on 40 °C. The phase C is to it-given after it under touching and again [ür 10 min with approximately 3000 r.p.m.s.s homogenizes.

CLAIMS

1. cosmetic with inorganic filling and active substances, marked by it, that it ground, optically clear glass particles with a middle grain size of 0,01 to 100 gm in a share of 0,1 to 55 Gew,% contains, with what the glasses, particles are formed out of a molten and after it solidified glass and are selected from the group, existing out of lime soda glasses, BorosilicaLgläser, AlumosTlicatgläser, high-refractive heavy Bleialkalisilicatgläser and mixture of it, and further cosmetic bearer materials, Hilisstoffe, active substances and mixture of it until 100 Gew -% contains, covered on the total weight of the cosmetic in each case.

2. cosmetic after claim 1, marked by it, that the glass particle special glasses are, that contain at the surface or in the mass of additional components.
3. cosmetic after claim 2, marked by it, that the optically clear glass particles through metals or Metallverbindungen in the glass matrix continuously is toned.
4. cosmetic after claim 2, marked by it, that at least a part of the surface of the glass particles is tinted by metal connections colorfully.
5. cosmetic after claim 2, marked by it, that the color tinge in form of attempt colors through a cools off, or heat treatment regimes during or after the Abkühlphase de, stood is.
6. cosmetic after claim 1, marked by it, that the glass particles are gemahlene optical glasses in form of Krongläsern, Flintgläsern or mixtures from it.
7. cosmetic after claim 2, marked by it, that the glass particles are gemahlene glass ceramics.
8. cosmetic after claim 7, marked by it, that the glass ceramics contain additives, that are selected, from the group, existing from Halogeniden like chlorine or Brom, zinc, Al_2O_3 , CeO_2 , silver and mixtures of it.
9. cosmetic after claim 7 or 8, marked by it, that the glass ceramics particles show phototropes behavior.
10. Cosmetic after claim 2, marked by it, that the glass particles of ground phototrophe glasses are.
11. Cosmetic after claim 2, marked by it, that the glass particles of ground IR-Filtergläser are.
12. Cosmetic after claim 2, marked by it, that the glass particles of ground W-Filtergläser are.
13. Cosmetic after one of the claims 1 to 12, through it ge, marks that the contained glass particles at the waite, surface silanisiert is.
13. Application of gemahlenen, optically clear glass particles with a middle grain size of 0,01 to 100 μm in a share of 0,1 to 55 Gew.% in cosmetic compositions with further bearer, support -, active substances and mixtures of it, with what the glass particles are formed out of an erschmolzenen and after it solidified glass and can have selected from the group, existing from at the surface or in the matrix of toned glass particles, particles of optical glasses, particles of glass ceramics, particles of polychromatischen glass ceramics, particles of phototropen glasses, particles of UV-Gläsern, particles of IR-Gläsern, silanisierten forms of the before named glass particles and mixtures of it.